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# GPS Steering System Installation Manual

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## Supported Vehicles

### Fendt 900 COM III AutoGuide Ready

922

924

927

930

933

936

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# LEGAL DISCLAIMER

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**Note:** Read and follow ALL instructions in this manual carefully before installing or operating the AutoSteer system.

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**Note:** Take careful note of the information in the Safety Information section and throughout this manual.

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The manufacturer disclaims any liability for damage or injury that results from failure to follow the instructions and warnings set forth herein.

**Please take special note of the following warnings:**

1. There is NO obstacle avoidance system included in the manufacturer's product. Therefore, users must always have an operator on the equipment when the AutoSteer system is in use to look for any obstacles including people, animals, trees, ditches, buildings, etc.
2. During installation of the AutoSteer system and during the Calibration and Tuning processes the vehicle steering system can move the vehicle and turn the front wheels. Be sure that all people and obstacles are clear of the vehicle on all sides before engine startup, calibration, tuning or use of the AutoSteer system.
3. Use of the AutoSteer system is NOT permitted while equipment is on roads or in public areas. Follow the instructions set forth below for ensuring that the system is OFF before driving on roads or in public areas.

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## Special Requirements

### *Tools*

This list consists of the tools required to complete the installation. The installer is assumed to have a complete set of common installation tools.

24mm socket and ratchet	24mm open end wrench	Tape measure, 12 ft (3.6 m) minimum
13mm open end wrench	13mm socket and ratchet	#2 Phillips screwdriver
8mm Allen wrench	3/8" open end wrench	Flat head screwdriver
Cable puller	Step ladder, 10 ft (3 m) minimum	T20 Torx Driver
Keys to remove radio		

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# Safety Information

## Warning Alerts



The AutoSteer system installer and manufacturer disclaim any responsibility for damage or physical harm caused by failure to adhere to the following safety requirements:



- As the operator of the vehicle, you are responsible for its safe operation.
- The AutoSteer system is *not* designed to replace the vehicle's operator.

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**Note:** Verify that all screws, bolts, nuts and cable connections are tight after the final installation of the AutoSteer system.



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	<div data-bbox="427 728 1101 800"> <b>WARNING</b></div> <p data-bbox="427 800 1101 942">To avoid electrical shock hazards, remove the Roof Module from the vehicle before driving under low structures or low electrical power lines.</p>
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	<div data-bbox="427 1033 1101 1104"> <b>WARNING</b></div> <p data-bbox="427 1104 1101 1274">To prevent injury from falling, ensure you are in a stable position on the vehicle when installing or removing the Roof Rail and Roof Module. If the vehicle does not provide a safe platform, use a ladder to safely access the vehicle roof while installing or removing the Roof Rail and Roof Module.</p>
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	<div data-bbox="427 1365 1101 1436"> <b>WARNING</b></div> <p data-bbox="427 1436 1101 1579">To prevent accidental death or injury from being run over by the vehicle, never leave the vehicle's operator chair with the AutoSteer system engaged.</p>
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	<div data-bbox="665 294 935 336"> <b>WARNING</b></div> <p data-bbox="435 365 1083 483">To prevent accidental death or injury from being run over by the vehicle. Ensure all sides of the vehicle are clear of people and obstacles before startup, calibration, tuning or use of the AutoSteer system.</p>
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	<div data-bbox="665 596 935 638"> <b>WARNING</b></div> <p data-bbox="435 667 1083 785">To understand the potential hazards associated with the operation of the AutoSteer system equipment read the provided documentation before installing the AutoSteer system on a vehicle.</p>
---	--



	<div data-bbox="665 898 935 940"> <b>WARNING</b></div> <p data-bbox="435 970 1083 1113">To prevent the accidental engagement of the AutoSteer system and loss of vehicle control while driving on roads, shut down the AutoSteer system (exit the program). Never drive on roads or in public areas with the AutoSteer system turned on.</p>
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## Caution Alerts

The AutoSteer system installer and manufacturer disclaim any responsibility for damage or physical harm caused by failure to adhere to the following safety requirements:



	 <b>CAUTION</b>
	The Roof Module must be removed when transporting or driving the vehicle at speeds above 30 mph (48 km/h). The Roof Module can possibly detach due to wind loads at higher speeds.

	 <b>CAUTION</b>
	The AutoSteer system does not detect obstacles in the vehicle's path. The operator must observe the path being driven in order to avoid obstacles.

	 <b>CAUTION</b>
	When engaged, the AutoSteer system controls only the steering of the vehicle. The operator must control the speed of the vehicle.

	 <b>CAUTION</b>
	The AutoSteer system must be powered OFF when installing or removing the Roof Module.

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	<div data-bbox="672 296 927 338"> <b>CAUTION</b></div> <p data-bbox="436 365 1081 483">The Roof Module must always be firmly secured to the Roof Rail using the hardware whenever the vehicle is in operation to prevent the Roof Module from releasing from its bracket and falling.</p>
---	--

## Vehicle Requirements

The vehicle steering system must be in good working order before installing the AutoSteer system. Check for loose or worn parts. Before installing the AutoSteer system drive the vehicle and confirm that it steers straight and the vehicle electrical system and battery must be in good working order.

The vehicle should be fully cleaned before installing the AutoSteer system. A clean vehicle improves the overall installation and cable routing.

This installation kit is designed for vehicles that are AutoGuide ready from the factory. The vehicle must be equipped with an AutoSteer valve, Wheel Angle Sensor and harnesses.

The vehicle must also be equipped with a spare Display mounting bracket. See *Figure 3-1* on *page 18* to view the Display bracket.

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## Important Information

This installation manual contains valuable information for servicing the AutoSteer system. After the installation is complete, store this manual in a safe place for future reference.

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**Note:** Verify that all screws, bolts, nuts and cable connections are tight after the AutoSteer system final installation.

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## Technical Support

Refer to your owner's manual for technical support information.

## Contact Information

Refer to your owner's manual for contact information.

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# Installation Overview

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This **Installation Overview** chapter contains part numbers, kit overview diagram, cabling diagram and the installation procedure for the Fendt 900 AutoGuide Ready Installation Kit.

- *Kit Overview*
- *Pre-Installation Vehicle Hardware Verification*
  - *Auto Guide Ready Verification Procedure*
- *Pre-Installation Vehicle Tests*
- *Installation Procedure Outline*
- *Cable Diagram*

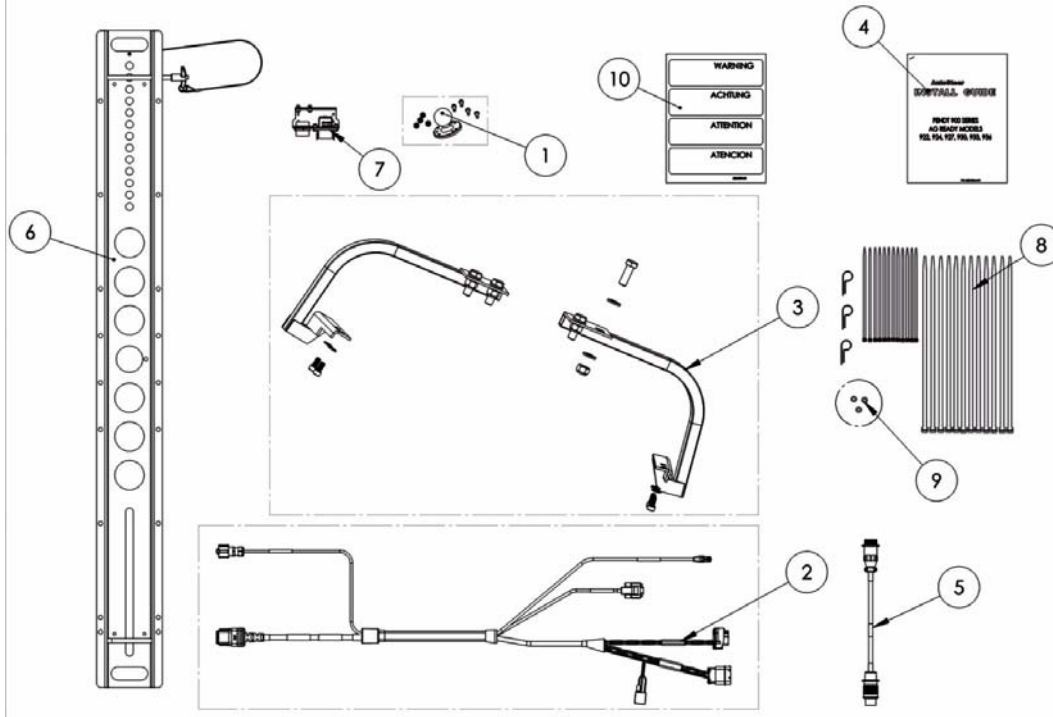
This installation manual describes AutoSteer system installation on several models of Fendt 900 AGR series vehicles. The AutoSteer installation kit PN: 188-0055-01 supports the models listed below.

- Fendt COM III AutoGuide Ready Series 922, 924, 927, 930, 933 and 936

# Kit Overview

The Fendt 900 AGR Series Installation Kit (PN 188-0055-01) contains the components shown in *Figure 1-1*.

**Figure 1-1 Installation Kit Components (PN 188-0055-01)**



**Table 1-1 Installation Kit Components (PN 188-0055-01)**

Item	Component	Part Number
1.	Display RAM Mount	200-0508-01
2.	Main Harness	200-0496-01
3.	Roof Brackets Assembly	200-0557-01
4.	Installation Guide	602-0264-01
5.	Power Adapter Cable	201-0234-01
6.	Roof Rail Assembly	200-0515-01
7.	Roof Rail Dummy Connectors	200-0520-01
8.	Mounting hardware	200-0076-01
9.	Flat Washer M6	517-0014-01
10.	Warning Labels	603-0074-01

## Pre-Installation Vehicle Hardware Verification

Before beginning the AutoSteer installation, you must verify that your vehicle has the appropriate hardware. Make sure there is an auto steer valve fitted.

### *Auto Guide Ready Verification Procedure*

The following list provides the verification processes required to ensure the vehicle has the required hardware installed prior to installing the AutoSteer system.

1. Verify the vehicle is Auto Guide Ready. Locate the position of the steering valve behind cover. See Figure 1-2

**Figure 1-2 Location of Auto Steer Valve**



Auto Steering Valve  
Location

2. *Figure 1-3.* shows the Auto Steer valve with cover removed.

**Figure 1-3 Auto Steer Valve**



## Pre-Installation Vehicle Tests

The vehicle's steering system must be in good working condition prior to the installation of the AutoSteer system. Verify the existing steering system is operating correctly by performing the tests listed below in a wide open area.

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**Note:** The steering system test requires a relatively large area. Ensure you have enough room to perform the test before beginning.

---

1. Drive the vehicle in a low gear and slowly turn the steering wheel all the way to the left. The vehicle should steer to the left at a steadily increasing rate until it is making a sharp left turn.
2. Drive the vehicle in a low gear and slowly turn the steering wheel all the way to the right. The vehicle should steer to the right at a steadily increasing rate until it is making a sharp right turn.

---

**Note:** The change in steering speed should mirror the speed and angle when turning left or right.

---

3. On flat terrain, drive the vehicle in a straight line in a low gear and release the steering wheel. The vehicle should continue to drive fairly straight without pulling hard left or right.

---

**Note:** This vehicle has reactive steering so large bumps on the ground may cause the front wheels and steering wheel to move. Also, if the wheels are turned to full lock left or right and the steering wheel is let go, the steering wheel will move back towards center and the front wheels will gradually straighten themselves out.

---

4. Ask the vehicle driver or owner if they have experienced any vehicle steering problems. The operator should report no steering problems.

If the vehicle passes the four tests, proceed with the AutoSteer system installation. If the vehicle fails one or more of the tests, the steering system must be evaluated by a dealer and repaired if necessary.

**Possible causes of steering problems:**

- Worn joints in steering cylinders and tie rods
- Hydraulic problem

## Installation Procedure Outline

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**Note:** The system interconnect cable diagram in the *Cable Diagram* on page 7 section of this chapter shows the AutoSteer system electrical connections and should be used as a reference during the installation process.

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1. Verify the components received match the shipping documentation.
2. Verify the vehicle has the proper hardware installed.
3. Install the Roof Rail and Roof Module
4. Install the Display mounting bracket RAM ball.
5. Install the Main Harness.
6. Connect the Display.

---

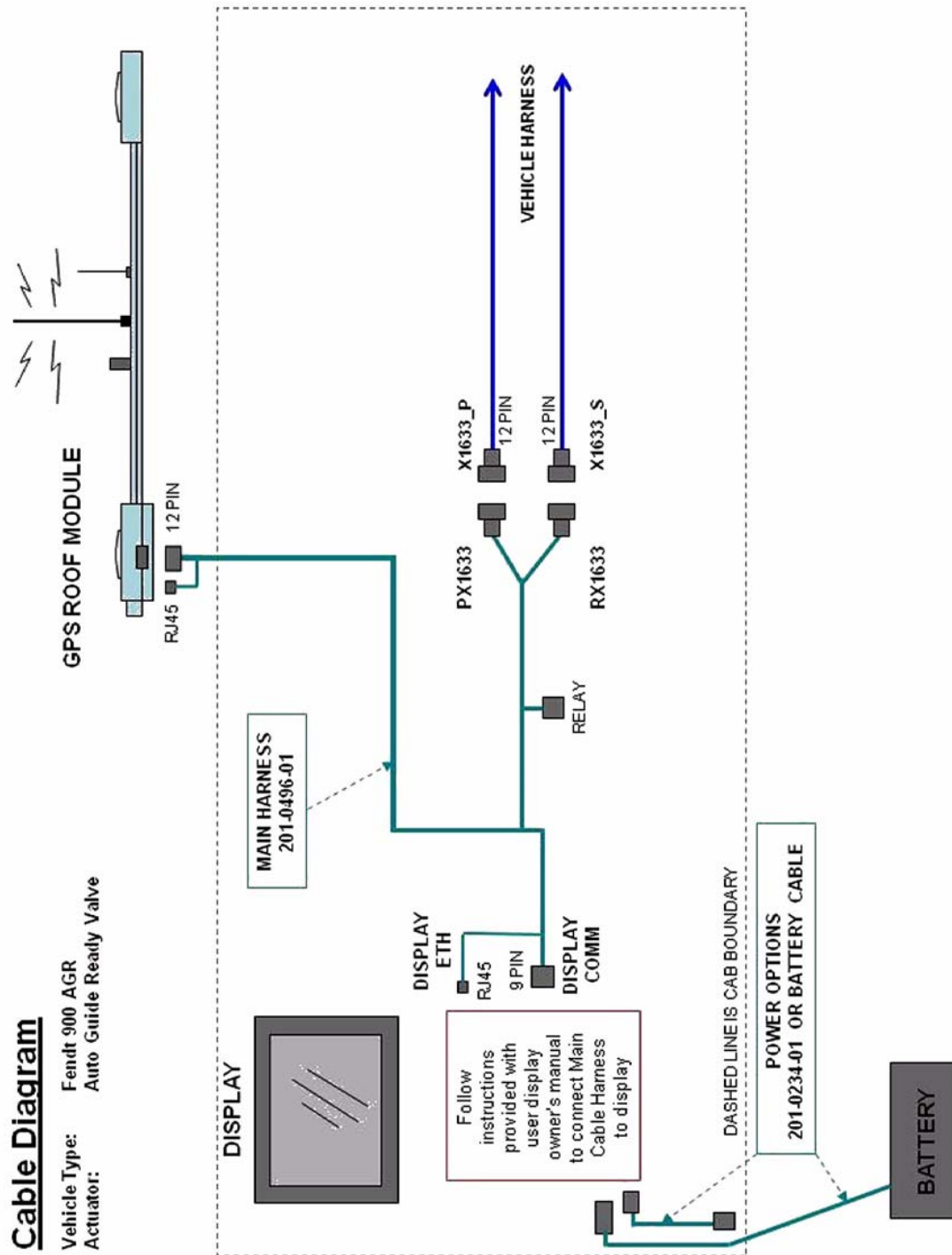
**Note:** Instructions for connecting the Display electrical connections are found in the Display User Manual.

---

7. Ensure all connectors are properly coupled secured with cable ties.
8. Power ON the AutoSteer system.
9. Calibrate the vehicle.
10. Tune the vehicle.
11. Verify the AutoSteer system has been properly installed and operates satisfactorily.



# Cable Diagram





# Roof Module Installation



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This **Roof Module Installation** chapter contains information in the following sections:

- *Safety Notes*
- *Installation Procedure*

## Safety Notes

- The AutoSteer system must be powered OFF when installing or removing the Roof Module.
- The Roof Module must be removed when transporting the vehicle at speeds above 30 mph/50kph.
- The Roof Module must always be firmly secured to the Roof Rail using the hardware provided whenever the vehicle is in operation to prevent the Roof Module from releasing from its bracket and falling.
- Two people may be required for Roof Module bracket installation.

	<div data-bbox="669 1024 937 1066"> <b>WARNING</b></div> <p data-bbox="438 1098 1071 1247">To prevent injury from falling, ensure you are in a stable position on the vehicle when installing or removing the Roof Rail and Roof Module. If the vehicle does not provide a safe platform, use a ladder to safely access the vehicle roof while installing or removing the Roof Rail and Roof Module.</p>
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## Installation Procedure

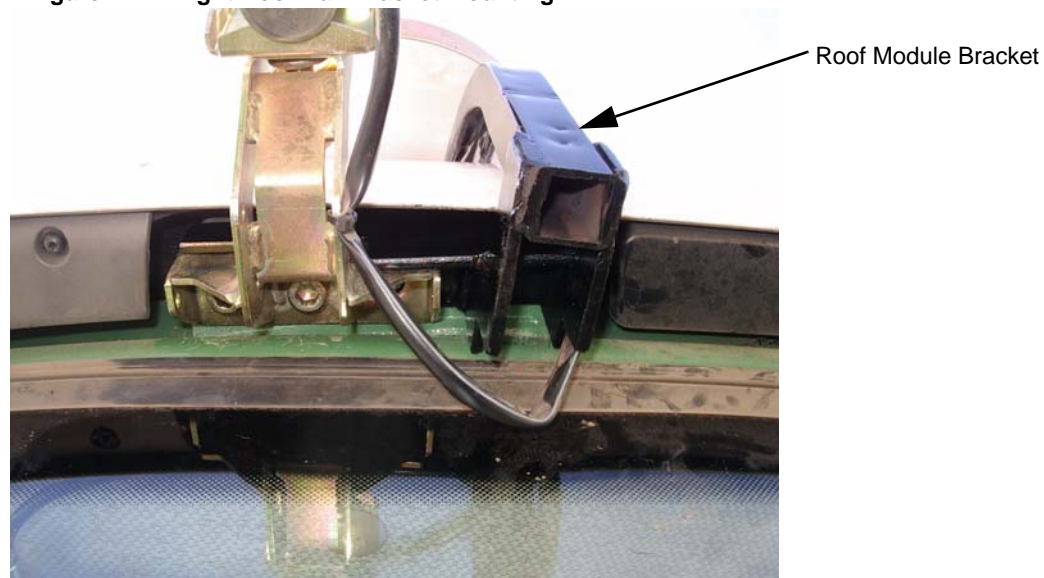
1. Locate area on the cab roof right side. See *Figure 2-1*.
2. Remove the rotating light's two mounting bolts using a 8mm allen wrench. See *Figure 2-1*.

**Figure 2-1 Right Mounting Bolt Locations**



3. Mount the Roof Rail bracket and rotating light. See *Figure 2-2*.
4. Insert the bolts and tighten them using an 8mm allen wrench.

**Figure 2-2 Right Roof Rail Bracket Mounting**



5. Locate area on the cab roof left side. Locate the threaded holes used for the mounting bolts. See *Figure 2-3*.

**Figure 2-3 Left Mounting Bolt Locations**



Mounting Bolts

6. Mount the Roof Rail bracket using the kit provided bolts and tighten them using an 8mm allen wrench. See *Figure 2-4*.

**Figure 2-4 Left Roof Rail Bracket Mounting**



Roof Module Bracket

7. Place the Roof Rail on top of the roof brackets. See *Figure 2-5*.

**Figure 2-5 Roof Module Mounting Brackets**



8. Insert four bolts, washers and nuts. See *Figure 2-5*.
9. Tighten the bolts using a 24mm wrench, 24mm socket and ratchet.

**Figure 2-6 Roof Module Mounting Rail**



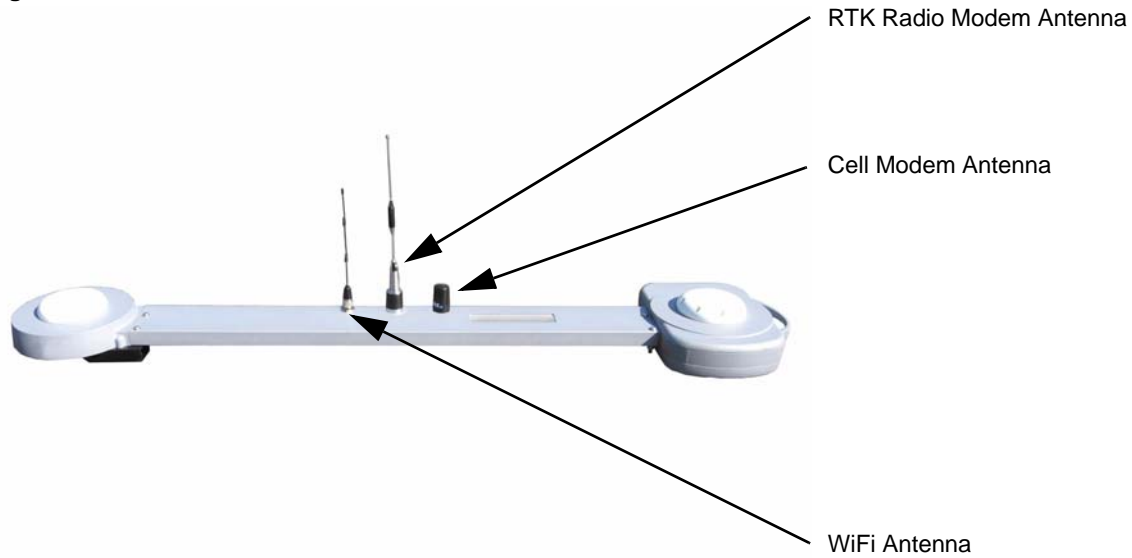
10. Attach the three antennas to the proper connections on the Roof Module. See *Figure 2-7*.

---

**Note:** Hand tighten the connections. Do not over tighten.

---

**Figure 2-7** Antennas Attached to Roof Module





11. Place the Roof Module on the Roof Rail.
12. Remove the Roof Rail locking pin. See *Figure 2-8*.

---

**Note:** Press the Locking Pin handle end release button to enable pin removal.

---

**Figure 2-8 Removing Locking Pin**



13. Place the Roof Module on the Roof Rail. See *Figure 2-9*

**Figure 2-9 Attach Roof Module**





14. Insert the locking pin to lock the Roof Module onto the vehicle. See *Figure 2-10*.

**Figure 2-10 Locking Pin Inserted**



Locking Pin

15. The Roof Module is now installed. See *Figure 2-11*.

**Figure 2-11 Roof Module Installed**





# Display Installation

---

This **Display Installation** chapter contains information in the following sections:

- *Installation Procedure*
  - *Display Bracket Installation*

This chapter provides instructions for installing the RAM mount ball in the cab. After the RAM mount is installed the display can be attached. Refer to your Display User Manual for installation instructions.

## Installation Procedure

The vehicle has a monitor rail on the cab right hand side and has attached sliding brackets. A RAM ball is mounted to this sliding bracket to enable Display arm mounting.

## *Display Bracket Installation*

1. Locate the sliding bracket RAM ball mounting point. See *Figure 3-1*.

---

**Note:** If your vehicle does not have an available factory sliding bracket installed on the rail, it must be ordered as a spare part from your Fendt dealer.

---

**Figure 3-1** Sliding Bracket



2. Attach the RAM mount ball to the mounting bracket using the kit provided 10-32 x 3/4" Phillips screws and lock nuts. See *Figure 3-2*.
3. Tighten the screws using a 3/8" wrench and #2 Phillips screwdriver.

**Figure 3-2** RAM Mount Installed



---

**Note:** Refer to the Display user manual for the remaining Display specific installation instructions.

---



# Connecting System Cables

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This **Connecting System Cables** chapter contains information in the following sections:

- *Routing the Harness*
- *Main Harness Connections Inside Cab*
- *Display*
- *Power Supply Connection*
  - *12V Power Outlet*
  - *Battery Power Connection*
- *Replacing Removed Covers*
- *Install Warning Label*

## Routing the Harness

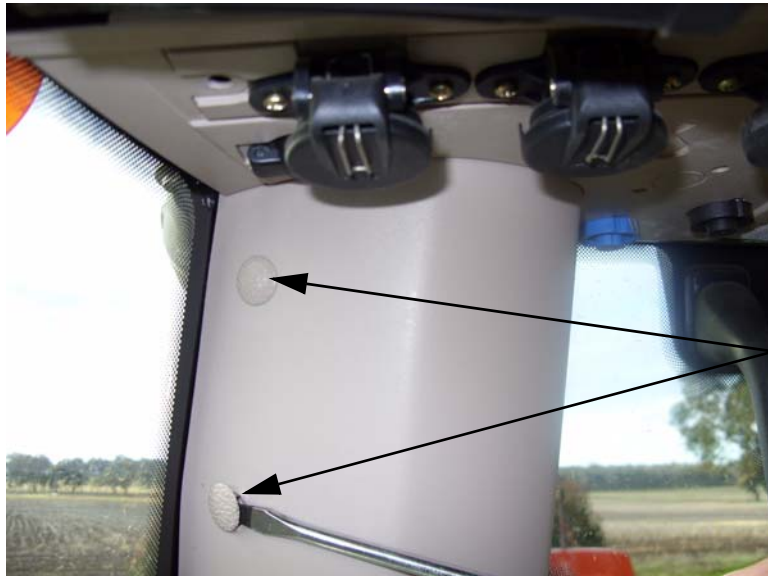
1. Remove the plastic screw to enable the right hand side pillar cover removal. Use a #2 phillips head screw driver. See *Figure 4-1*.

**Figure 4-1** Removing Cover Screw



2. Remove the two plastic inserts using a flat head screw driver to lever them out. See *Figure 4-2*.

**Figure 4-2 Remove Plastic Inserts**



Remove Plastic Inserts

3. Remove the three plastic bolt head covers on the display rail. See *Figure 4-3*.

**Figure 4-3 Remove Plastic Caps**



Plastic Caps



4. Remove the mounting rail bolt and nut using a 13mm wrench, 13mm socket and ratchet. See *Figure 4-4*.

**Figure 4-4 Removing Bolt and Nut**



5. Remove rail bracket by unscrewing the two bolts as shown using a 13mm wrench.

---

**Note:** Do not lose spacers when the bolts are removed. See *Figure 4-5*.

---

**Figure 4-5 Remove Bolts Retaining Bracket**



6. Remove plastic screw using a #2 phillips head screw driver. See *Figure 4-6*.

**Figure 4-6 Remove Plastic screw**



7. Remove Pillar Cover. See *Figure 4-7*.

**Figure 4-7 Pillar Cover Removed**



8. Remove Power socket panel by removing the two retaining screws using a #2 phillips head screw driver. See *Figure 4-8*.

**Figure 4-8 Remove Power Socket Panel**



9. Locate the right hand side cab area behind the drivers seat. See *Figure 4-9*.
10. Unscrew the two plastic screws using a #2 phillips head screw driver. See *Figure 4-9*.

**Figure 4-9 Removing Plastic Screws**



11. Remove the plastic cover. See *Figure 4-10*.

**Figure 4-10 Plastic Cover Removed**



12. Remove the five plastic screws holding the cover using a #2 phillips screw driver. See *Figure 4-11*.

**Figure 4-11 Remove Five Plastic Screws**



Plastic Screws



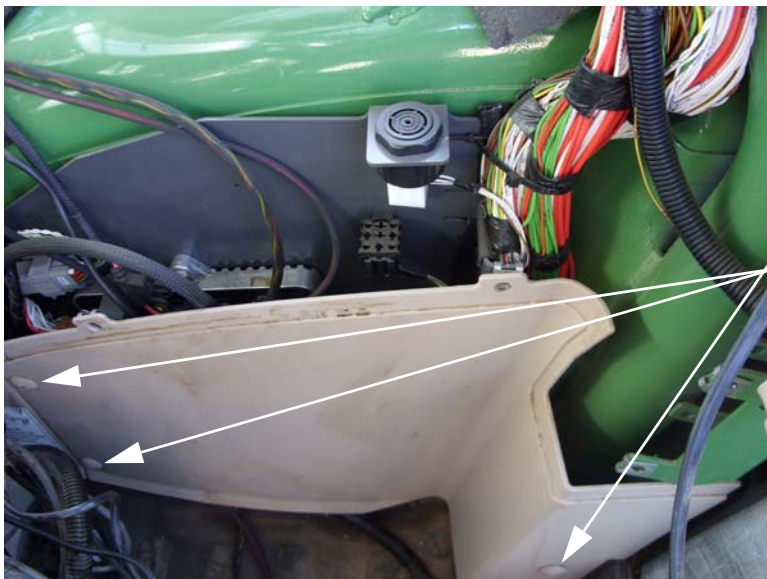
13. Remove the large plastic cover. See *Figure 4-12*.

**Figure 4-12 Plastic Cover Removed**



14. Remove the three plastic screws using a #2 phillips head screw driver. See *Figure 4-13*.

**Figure 4-13 Remove Screws**



Plastic Screws

15. Remove the lower plastic cover. See *Figure 4-14*.

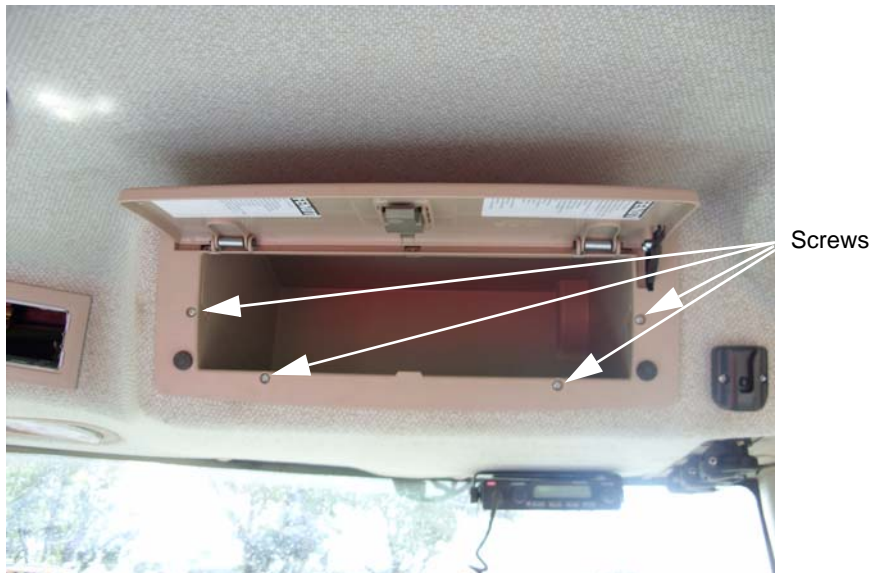
**Figure 4-14 Cover Removed**



16. Locate the cab right side compartment. See *Figure 4-15*.

17. Open the compartment lid and unscrew the four retaining screws using a #2 Phillips head screw driver.

**Figure 4-15 Remove Screws Holding Compartment**



18. Remove the compartment lid. See *Figure 4-16*.

**Figure 4-16** compartment Lid Removed



19. Locate the cab radio. See *Figure 4-17*.

**Figure 4-17** Radio





20. Remove the Radio. See *Figure 4-18*.

---

**Note:** Radio removal may require special tools based upon the installed radio type.

---

**Figure 4-18 Radio Removed**



21. Locate the front right speaker and remove it using a #2 phillips head screw driver. See *Figure 4-19*.

**Figure 4-19 Remove Speaker**





22. Locate the CAN connectors in speaker cavity. See *Figure 4-20*.

**Figure 4-20 CAN Connectors**



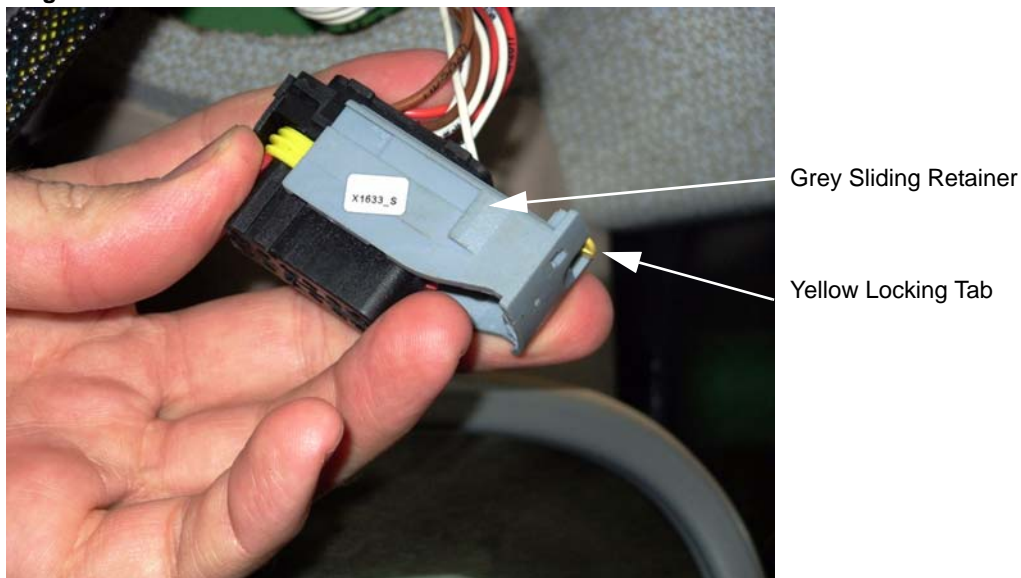
23. Disconnect the CAN connectors labelled X1633\_S and/or X1633\_P. See *Figure 4-21*.

---

**Note:** To unplug the connectors, first pull out the small yellow locking tab then slide the grey slider sideways. To reconnect, move the grey slider to latch the two connectors together then press in the small yellow tab to lock. Never use tools and never force the connectors.

---

**Figure 4-21 CAN Connectors Disconnected**



24. Locate the kit supplied Main Cable Harness. See *Figure 4-22*.
25. Route the two Main Cable Harness CAN connectors from the rear right pillar into the roof lining and forward until the connectors come out of the speaker cavity. See *Figure 4-22*.

---

**Note:** Use the opening around the removed compartment lid and opening from the removed radio to guide the harness forward.

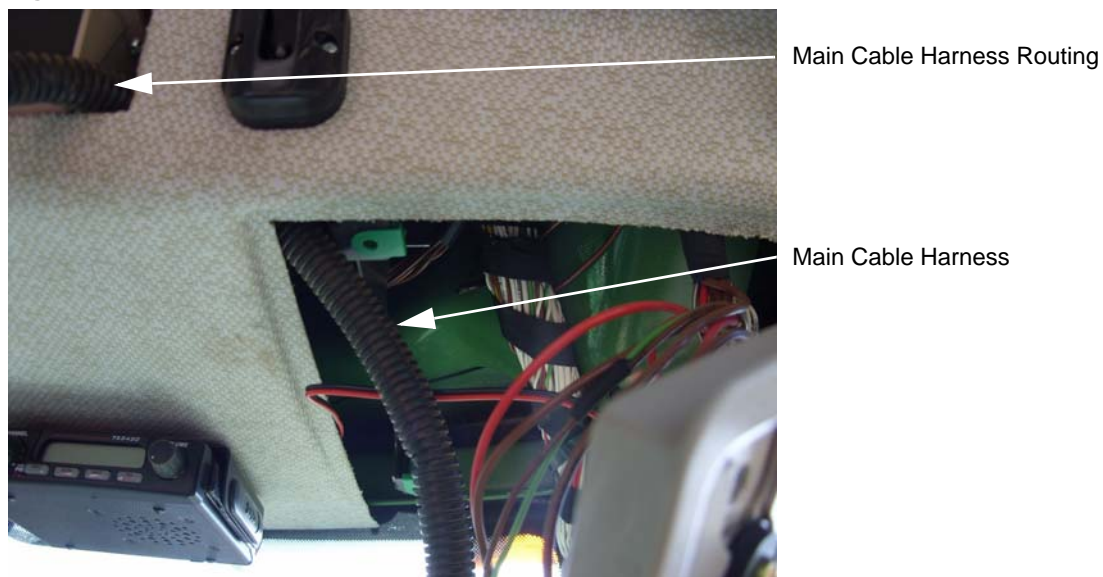
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**Note:** A Cable Puller may be used to assist pulling the harness through the cavity.

---

**Figure 4-22** Route Harness



26. Pull the Main Cable Harness out of the speaker cavity. See *Figure 4-23*.

**Figure 4-23 Pulling the Main Cable Harness**



**27.** Connect the kit supplied Main Cable Harness to the previously disconnected Vehicles Harness connectors.

---

**Note:** The connectors are labelled X1633\_S and/or X1633\_P. See *Figure 4-21*.

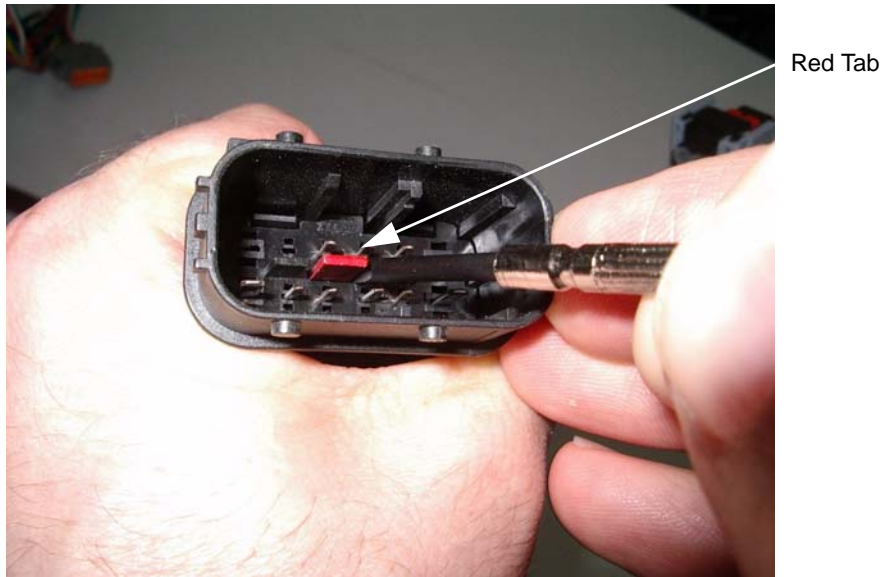
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**Note:** If connectors do not mate, the red tab inside the AutoSteer Main Cable Harness connector may need to be pushed to the opposite side. See *Figure 4-24*.

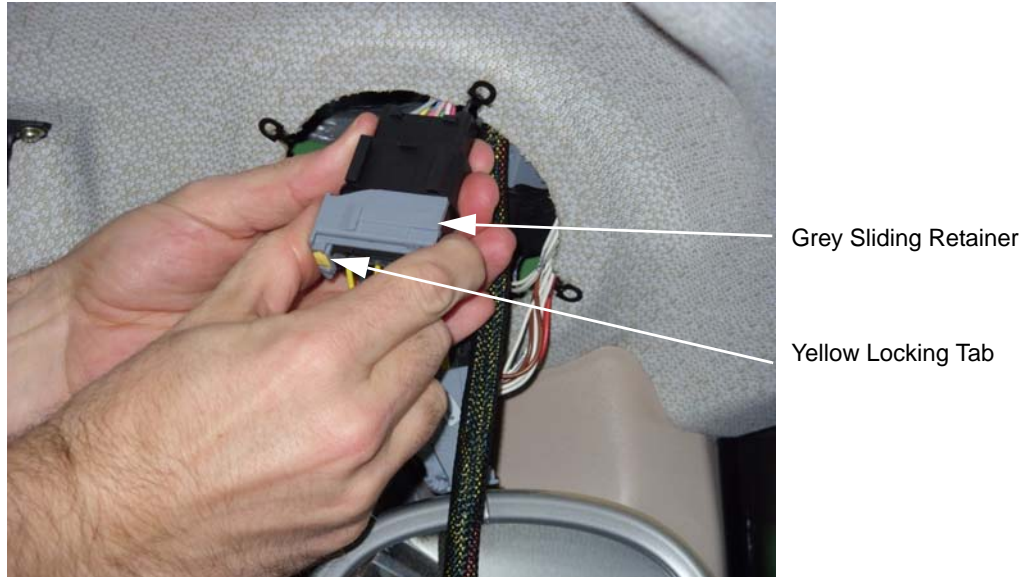
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**Figure 4-24** Red Tab within Connector



**Note:** Ensure both the grey sliding retainer and yellow locking tabs are in their locked position.

**Figure 4-25 Connecting Main Cable Harness to the Vehicle Harness**



28. Route the Main Cable Harness opposite ends down the rear pillar. See *Figure 4-26*.

**Figure 4-26 Route Main Harness Down Pillar**





29. Route and attach the appropriate connector(s) to the Display.

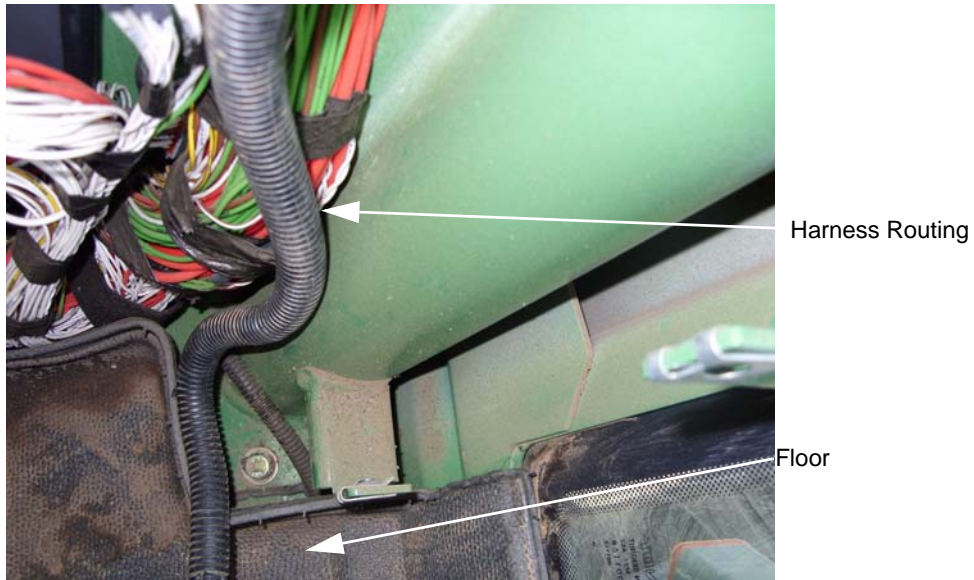
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**Note:** Refer to the Display User Manual for Display specific installation instructions.

---

30. Route the Roof Module connectors to the floor. See *Figure 4-27*.

**Figure 4-27** Route Roof Module Connectors



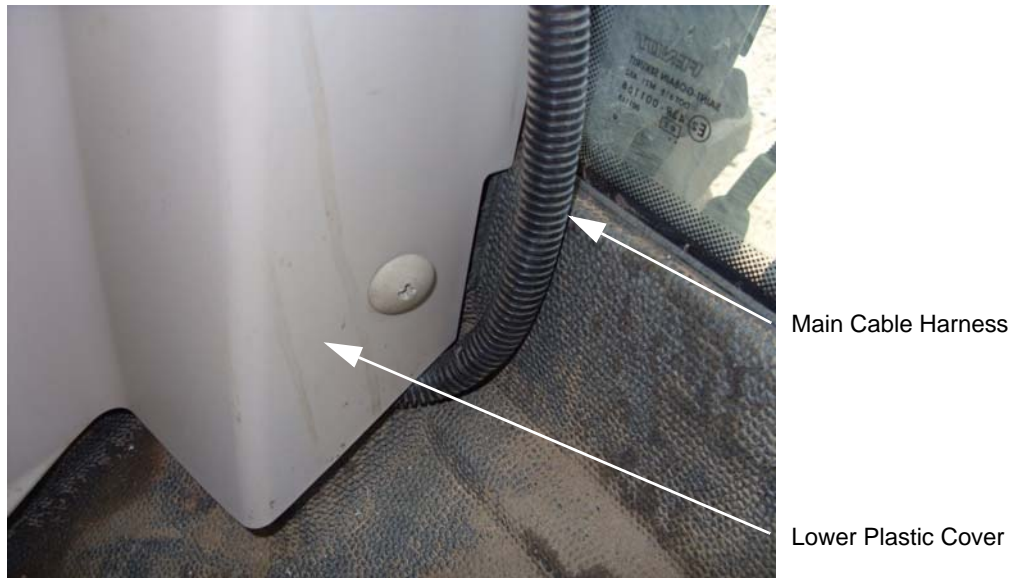
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**Note:** Do not replace covers until the power connection is established. See the *Power Supply Connection* section for information on connecting to vehicle power.

---

31. Route the Main Cable Harness outside the plastic cover up towards the rear window. See *Figure 4-28*.

**Figure 4-28 Main Cable Harness Routing**



32. Open the rear window.

33. Locate the rear cab entry point. See *Figure 4-26*.

**Figure 4-29 Rear Cab Entry Point**



Rear Cab Entry Point

34. Push the entry point lever towards the cab right side. See *Figure 4-30*.

**Figure 4-30 Cab Entry Point Lever**



Move Lever Towards the Cab Right Side



35. Open the entry point to enable the Main Cable Harness to feedthrough to the cab exterior. See *Figure 4-31*.

**Figure 4-31 Open Entry Point**



36. Route the Main Cable Harness up and through the entry point to the cab exterior.
37. Close the entry point over the harness and close the rear window. See *Figure 4-32*.

**Figure 4-32 Harness Routing out the Cab Entry Point**



Main Cable Harness Routing

38. Route the Main Cable Harness up the right rear pillar until it reaches the roof. See *Figure 4-33*.

**Figure 4-33 Route Harness up the Cab Exterior**



Main Cable Harness Routing

39. Remove screw from below roof panel using a T20 Torx driver.  
40. Place a “P” clamp around harness and replace the screw with three kit provided washers. See *Figure 4-34*.

**Figure 4-34 Fit ‘P’ Clamp to Harness**



Three Washers

“P” Clamp

41. Route the remaining Main Cable Harness to the Roof Rail and across to the cab left side.
42. Secure the Main Cable Harness to the Roof Rail with the kit provided cable ties. See *Figure 4-35*.

**Figure 4-35 Secure Main Cable Harness**



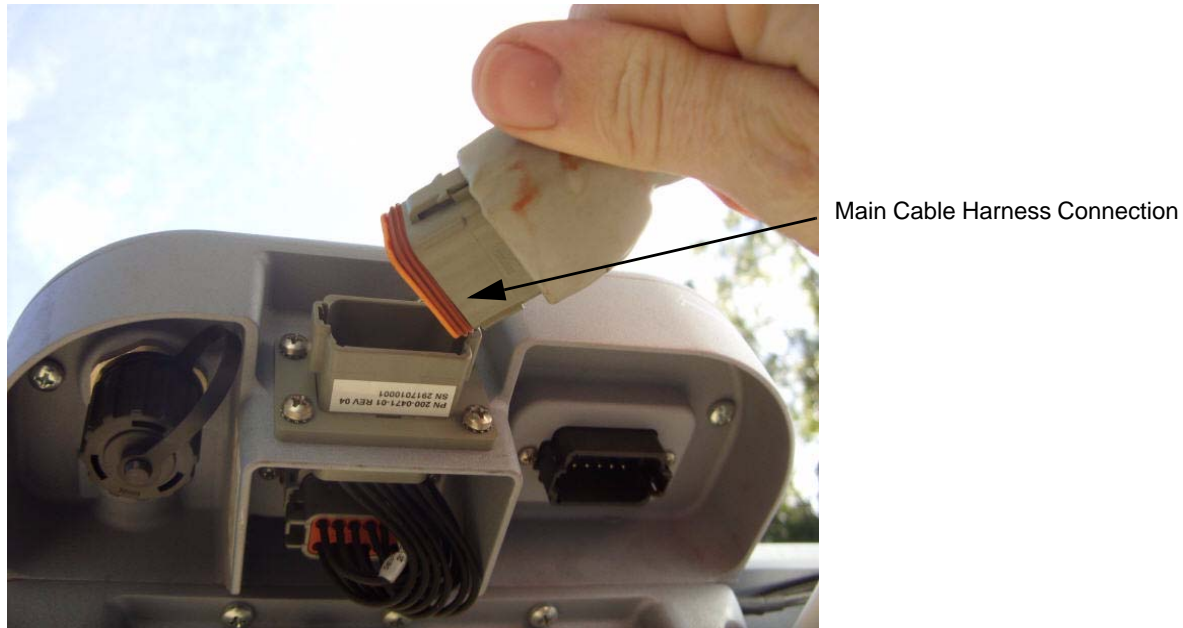
43. Connect the Main Harness to the Roof Module connector. See *Figure 4-36*.
44. Orient the 12-pin connector so the word TOP on the harness connector is pointing upwards (towards the sky). See *Figure 4-36*.
45. Insert the harness connector into the Roof Module. Push the connector in until it clicks and locks in place.

---

**Note:** To remove the connector, grasp the connector to compress the two side latches and then pull away from the Roof Module.

---

**Figure 4-36** Connecting the Main Cable Harness to Roof Module



46. Orient the Ethernet harness connector with the connector under the receiver so the contacts on the harness connector are pointing towards the vehicle rear. See *Figure 4-37*.

---

**Note:** This orientation is usually towards your right side if you are standing on the vehicle left side and looking towards the Roof Module.

---

47. Slide the harness connector into the receiver and rotate the plastic bayonet sleeve clockwise to lock the connector. See *Figure 4-37*.

**Figure 4-37 Roof Module Ethernet Connection**

## Main Harness Connections Inside Cab

*Figure 4-38* shows the Main Cable Harness connections used inside the cab. *Table 4-1* shows the functions of the Main Harness cab connectors. Refer to your Display user manual for instructions on connecting the Main Harness connections shown to the correct ports and harnesses on the Display and Display cables.

Figure 4-38 Main Harness Cab Connections

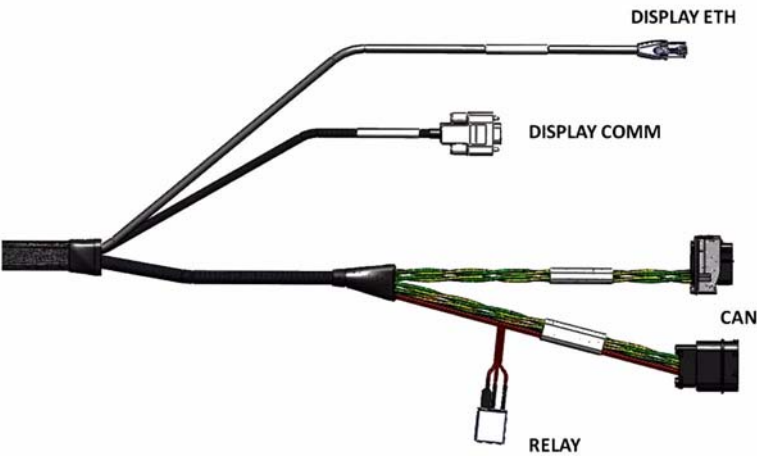


Table 4-1 Cab Main Cable Harness Connector Functions

Connector	Connector Function
DISPLAY ETH	Display Ethernet Port (RJ-45)
DISPLAY COMM	Display Communication Port (DB-9)
CAN	Connect to Vehicle CAN

# Display

1. Attach the Main Harness to your Display harness.

**Note:** Refer to your Display Owners manual for details on connecting the Display harness.

## Power Supply Connection

The following sub-sections describe basic instructions for connecting your Display to available vehicle power sources:

- *12V Power Outlet*
- *Battery Power Connection*

---

**Note:** Refer to your Display user manual for electrical connection information before attempting to connect the AutoSteer system to vehicle power. If your Display manual requires a cab power connection see the *12V Power Outlet* section, if your Display manual requires a direct battery connection see the *Battery Power Connection* section.

---

The Display must be connected to 12V vehicle power according to the wiring diagram provided with your Display. Your Display user manual provides a wiring diagram for connecting the AutoSteer system to 12V Power. Your Display user manual may specify using a cab 12V power outlet or may require a direct connection to the vehicle battery. Your Display wiring diagram specifies the recommended vehicle 12V power source. Whether your Display harness connects to the vehicle battery or to the 12V power outlet inside the cab, it is shipped with the appropriate harness for your installation.



## 12V Power Outlet

1. If your Display manual requires a cab power connection, locate the three cab right hand side power outlet points. Use adapter cable PN: 201-0234-01. See *Figure 4-39*.

**Figure 4-39 Power Outlet Location**



**Figure 4-40 Power Outlet Close-up**





## Battery Power Connection

1. Locate the Battery power connection inside the cab on the right hand side next to the seat. See *Figure 4-41*.

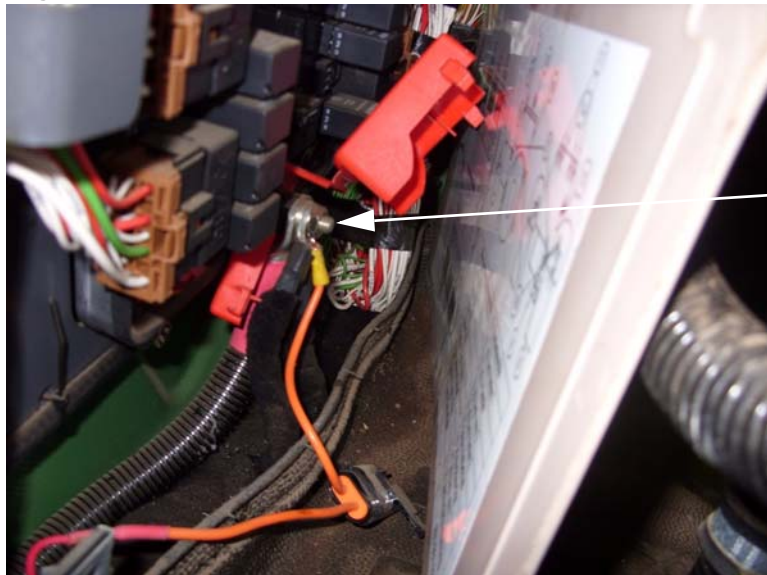
**Figure 4-41 Battery Connection Location**



Positive (+) Battery Connection Location

2. Connect the Red (+) power cable adapter wire to vehicle 12 volt power. See *Figure 4-42*.

**Figure 4-42 Positive Connection**



Positive Connection

3. Connect the Black (-) power cable adapter wire to a vehicle ground point. See *Figure 4-43*.

**Figure 4-43 Ground Connection**



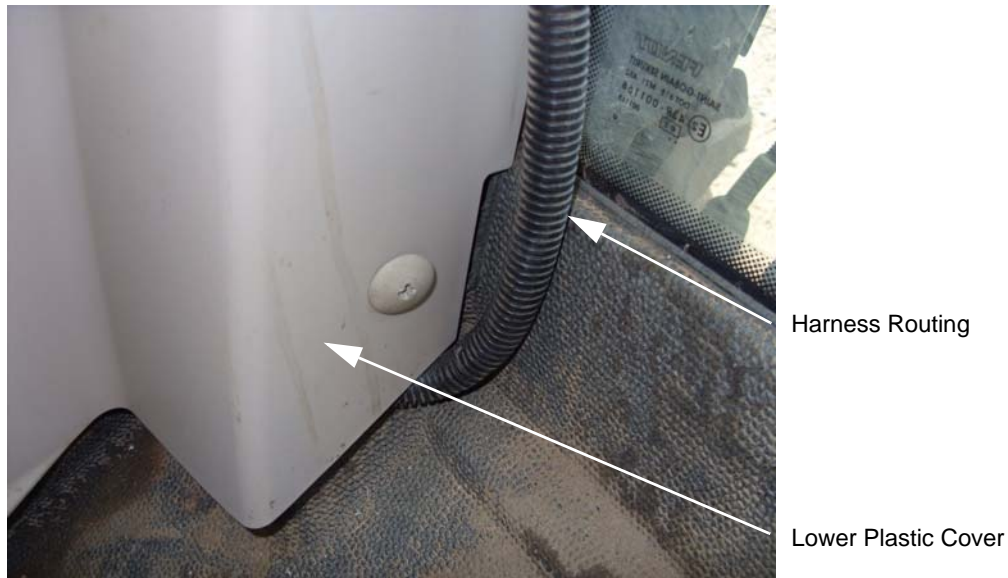
Ground Connection

4. Replace all previously removed covers.

## Replacing Removed Covers

1. Replace the removed cab right side compartment lid and the radio.
2. Reconnect and replace the previously removed speaker.
3. Replace the previously removed lower plastic cover. See *Figure 4-44*.

**Figure 4-44 Plastic Cover Replaced**



4. Replace the previously removed Pillar plastic cover and secure by installing the removed screws, bolts brackets and inserts.
5. Replace the previously removed display rail.

## Install Warning Label

Install the Warning label on the cab window in a position that is easy to read and does not obstruct the driver's view of the road or surrounding obstacles. See *Figure 4-45*.

---

**Note:** Install the warning label with the language that best matches the operator's language. If necessary, install labels in multiple languages. Warning labels are provided in the following languages: English, French, German and Spanish.

---

**Figure 4-45** Autosteer Warning Label



# Post-Installation Procedures and Information

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This **Post-Installation Procedures and Information** chapter contains information on procedures and processes that should be performed after the installation process is complete. The information for this chapter is contained in the following sections:

- *Notes on System Power*
- *Create a New Vehicle*
- *Calibration and Tuning Notes*
- *Additional Information*
  - *Retrieving Error Codes*
  - *Factory Wheel Angle Sensor Calibration*

## Notes on System Power

This vehicle type provides separate Roof Module and Display power. The Roof Module obtains its power from the vehicle when two conditions are met:

1. The vehicle ignition switch is ON.
2. The Autosteer standby button is activated.

**Figure 5-1 Armrest Console**



AutoSteer Button  
(Go Button)

AutoSteer Standby Button

## AutoSteer System Armrest Control States

- The standby button can be off, flashing or on solid.
- If it is off, press and hold it for 5 seconds, it will start flashing and the Roof Module gets powered up.
- Pressing and holding the Standby button for another 5 seconds will turn it off again and shut off power to the Roof Module.
- If the Standby button is on when the vehicle ignition is turned off then it will come on again next time the ignition is turned on.
- The same applies if it is off when the tractor is turned off.

---

**Note:** To power up the system turn the ignition on and confirm the LED on the Autosteer standby button is flashing.

---

---

**Note:** The Autosteer display is powered on using its own power button, refer to Display instructions.

---

## Create a New Vehicle

After the entire system has been installed, including the Display and Roof Module, the operator must create a new vehicle profile using the AutoSteer system. The vehicle profile configures the hardware and enables the display to communicate with the various sensors and vehicle components.

Follow the procedure below to create a new vehicle:

1. Ensure the vehicle is in Park and/or the park brake is set to prevent the vehicle from moving.
2. Turn the ignition to ON but do not start the engine, ensure the Autosteer standby button light is flashing.
3. Power up the AutoSteer display.
4. Follow the instructions provided in the Display User Manual to create a new vehicle.

---

**Note:** Select the appropriate Fendt vehicle model when setting up your vehicle on the AutoSteer system display.

---

5. Enter the vehicle dimensions and allow the vehicle to be fully created but exit the setup wizard when prompted to start the autocalibration using the top left return arrow. Accept the warning about cancelling calibration.
6. Turn off the vehicle ignition and autosteer display, wait 10 seconds then start the engine fully. Start the Autosteer display.

---

**Note:** Step 7. must be repeated every time the vehicle is started.

---

7. Wait approximately 90 seconds for the Roof Module to boot up then press the Autosteer Standby button once and confirm that the flashing LED goes to solid ON. If it does not go on first go wait a little longer and try again. The vehicle cannot be controlled until this light is on solid. See *Figure 5-2*. The light can only go to solid ON if the engine is running and the correct Fendt Autoguide2 vehicle type is selected in the Roof Module.



**Figure 5-2 LED Light**

8. Once the standby light is on solid proceed to calibration and tuning. Since the setup wizard was cancelled earlier the calibration must be started manually in the AutoSteer setup software.

## Calibration and Tuning Notes

---

**Note:** For optimal AutoSteer performance, the AutoSteer system must be fully calibrated and then tuned.

---

---

**Note:** It is essential that the vehicle steering system is armed (standby button light on solid) before starting the calibration. If you start the calibration and then realise it wasn't armed the calibration must be cancelled and restarted.

---

## Additional Information

The information for this section is contained in the following parts:

- *Retrieving Error Codes*
- *Factory Wheel Angle Sensor Calibration*

### Retrieving Error Codes

Error codes can be retrieved from the tractor dashboard which Fendt refers to as the multifunction display. Some calibration procedures are also possible from here. There is a procedure for calibrating the factory Wheel Angle Sensor and Steering valve.

**Figure 5-3 Multifunction Display**



Multifunction Display Showing  
Stored Error Code 1 of 7



1. Identify the home screen when the vehicle ignition is ON. See *Figure 5-4*.

**Figure 5-4 Home Screen**



2. Identify the buttons used to control the multifunction display. See *Figure 5-5*.

**Figure 5-5 Control Buttons**



Control Buttons (Return)

3. Press the Return button to get to the setup screen.
4. Use the up/down arrows to get the triangle with exclamation mark icon flashing and then press Return. See *Figure 5-6*.

**Figure 5-6 Access Error Codes**



5. Stored error codes can now be reviewed one at a time by using the up/down arrows. See *Figure 5-7*.

---

**Note:** The top number shows the number of stored codes. The middle number shows which number in the list is being viewed and the bottom number is the error code.

---

---

**Note:** A common error code is 18.1.4A. It occurs every time the AutoSteer system stops communicating with the vehicle after communication has been initially established. This occurs when changing vehicles or editing the ParaDyme database.

---

**Figure 5-7 Review Error Codes**



## *Factory Wheel Angle Sensor Calibration*

The vehicle stores a calibration for its wheel angle sensor. If the calibration is not accurate overall autosteer performance is degraded.

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**Note:** A symptom of a poor wheel angle sensor calibration is the vehicle will not drive straight when commanded with zero curvature. This can be tested from the "Steering Components -> Actuator" screen in the ParaDyme software.

---

1. With the vehicle running and ready for AutoSteer use the Steering Components screen left and right buttons to command the wheels to different angles.
2. While driving the vehicle forward at a moderate speed such as 5 km/h (3 mph) command the wheels to Zero and observe the path the vehicle follows. It will never be perfectly straight but if it is very obviously curved the wheel angle sensor may need to be recalibrated. If the factory wheel angle sensor requires calibration, contact your Fendt dealer to perform the calibration.

---

**Note:** If the wheel angle sensor is ever calibrated by a dealer or other technician the Autosteer system should also be recalibrated.

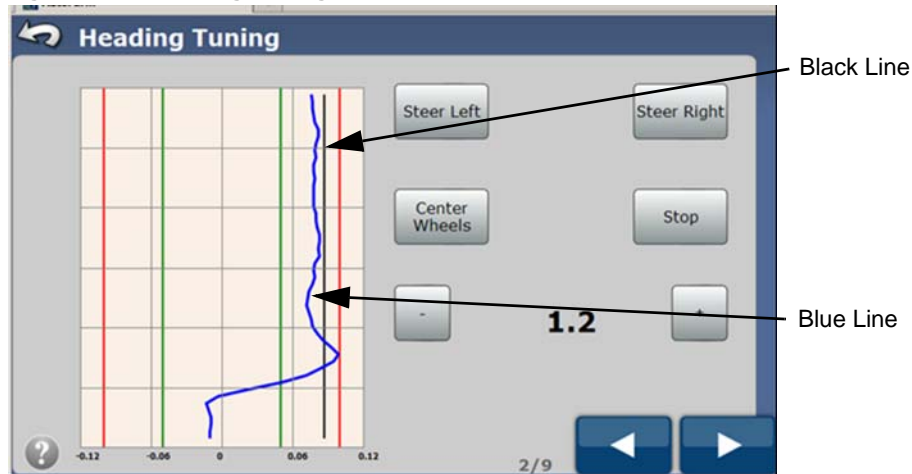
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**Note:** Another symptom of error in the wheel angle sensor calibration can be seen in the Paradyme "heading tuning" screen. *Figure 5-8* and *Figure 5-9* show the blue (measured) line is always a little bit to the left of the black (commanded) line. This example is acceptable but a larger difference could indicate a need for factory wheel angle sensor calibration. It could also indicate that the Roof Module is not perpendicular across the vehicle.

**Figure 5-8 Heading Tuning 1**



**Figure 5-9 Heading Tuning 2**





# Final Hardware Installation Checklist

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This **Final Hardware Installation Checklist** chapter contains the verifications steps necessary after AutoSteer system installation.

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**Note:** The Final Hardware Installation Checklist is on the back of this page. Fill in the checklist after the installation. You should keep a copy of this checklist for future reference when servicing the AutoSteer system.

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Machine Model: \_\_\_\_\_ Year: \_\_\_\_\_ Serial #: \_\_\_\_\_

Customer Name: \_\_\_\_\_

Location/Address: \_\_\_\_\_

AutoSteer Installation Kit Part Number: \_\_\_\_\_

## NOTES

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Name of Installer: \_\_\_\_\_ Date: \_\_\_\_\_



### System Installation Checklist

1. Monitor Bracket Installed and all fasteners are tight. ☐
2. Roof Rail and Roof Module are installed and all fasteners are tight. ☐
3. All cable ends are connected. ☐
4. All cables are secured with cable ties. ☐

### AutoSteer Performance Checklist

1. Complete AutoSteer system calibration. ☐
2. Complete AutoSteer system tuning. ☐
3. Verify that line acquisition is good. ☐
4. On-line steering is good. ☐
5. Manual override (kick-out) is working. ☐
6. Steering speed from lock-to-lock is satisfactory. ☐ Value\_\_\_\_\_Sec.